

CLAIMS

1. An apparatus for separating at least one component
5 of a gas mixture by pressure swing adsorption,
comprising, in a generally vertical vessel (1)
comprising an upper dome (2), at least one
adsorbent mass (4) separating a first vertical
chamber (5) receiving the gas mixture to be
10 separated, from a second vertical chamber (7)
collecting a separated gas mixture, a generally
horizontal flexible wall (9) being pressed against
the upper end of the adsorbent mass (4) by
pressing means (10, 11), characterized in that it
15 comprises means (12; 14) for controlling the
pressure in the volume between the flexible wall
(9) and the dome (2).
2. The apparatus as claimed in claim 1, characterized
20 in that the volume between the flexible wall (9)
and the dome (2) communicates (12; 13) with one of
said first and second chambers.
3. The apparatus as claimed in either of claims 1 and
25 2, characterized in that it further comprises
means (10) for ballasting the flexible wall (9).
4. The apparatus as claimed in either of claims 2 and
3, characterized in that it comprises a line (12)
30 connecting said volume to the second chamber (7).
5. The apparatus as claimed in either of claims 2 and
3, characterized in that it comprises a passage
(13) between said volume and the first

chamber (5).

6. The apparatus as claimed in the preceding claims,
characterized in that the adsorbent mass (4) is
5 annular, and the first (5) and second (7) chambers
are concentric.
7. The apparatus as claimed in one of the preceding
claims, for separating components of air, the
10 adsorbent comprising at least one zeolite.